

WHAT IS CLAIMED IS:

1. A peripheral surface shape measuring apparatus of a roll-like object which measures a peripheral surface shape of a roll-like object, comprising:

a displacement amount measuring device which has a pinching device that pinches the roll-like object in a diameter direction of the roll-like object with a sensor part and a reference point part arranged opposite to each other, and which measures a displacement amount when the sensor part is relatively displaced in the diameter direction with respect to the reference point part; and

a moving device which moves the displacement amount measuring device from one end side of the roll-like object to another end side of the roll-like object in an axial direction of the roll-like object,

wherein the peripheral surface shape of the roll-like object is measured on the basis of the displacement amount of the sensor part accompanied by movement of the displacement amount measuring device.

2. The peripheral surface shape measuring apparatus of the roll-like object according to claim 1, further comprising a guiding device which makes it easy for the displacement amount measuring device to move in parallel to a central axis of the roll-like object.

3. The peripheral surface shape measuring apparatus of the roll-like object according to claim 1, wherein the sensor part and the reference point part are shaped like bars which are perpendicular to an axial direction of the roll-like object and are in parallel to each other.

4. The peripheral surface shape measuring apparatus of the roll-like object according to claim 3, further comprising a guiding device which makes it easy for the displacement amount measuring device to move in parallel to a central axis of the roll-like object.

5. The peripheral surface shape measuring apparatus of the roll-like object according to claim 1, wherein contact positions to the roll peripheral surface of the sensor part and the reference point part which pinch the roll-like object are within a range of  $\pm 5$  mm with respect to the diameter direction in a plane perpendicular to the diameter direction.

6. The peripheral surface shape measuring apparatus of the roll-like object according to claim 5, further comprising a guiding device which makes it easy for the displacement amount measuring device to move in parallel to a central axis of the roll-like object.
7. The peripheral surface shape measuring apparatus of the roll-like object according to claim 5, wherein the sensor part and the reference point part are shaped like bars which are perpendicular to an axial direction of the roll-like object and are in parallel to each other.
8. The peripheral surface shape measuring apparatus of the roll-like object according to claim 7, further comprising a guiding device which makes it easy for the displacement amount measuring device to move in parallel to a central axis of the roll-like object.